

(12) 按照专利合作条约所公布的国际申请

(19) 世界知识产权组织
国际局



(10) 国际公布号
WO 2024/007689 A1

(43) 国际公布日
2024 年 1 月 11 日 (11.01.2024)

WIPO | PCT

(51) 国际专利分类号:
H04L 67/1097 (2022.01)

(21) 国际申请号: PCT/CN2023/090018

(22) 国际申请日: 2023 年 4 月 23 日 (23.04.2023)

(25) 申请语言: 中文

(26) 公布语言: 中文

(30) 优先权:
202210800712.6 2022 年 7 月 8 日 (08.07.2022) CN

(71) 申请人: 腾讯科技(深圳)有限公司 (TENCENT TECHNOLOGY (SHENZHEN) COMPANY LIMITED) [CN/CN]; 中国广东省深圳市南山区高新区科技中一路腾讯大厦 35 层, Guangdong 518057 (CN)。

(72) 发明人: 邵珠光 (SHAO, Zhuguang); 中国广东省深圳市南山区高新区科技中一路腾讯大厦 35 层, Guangdong 518057 (CN)。

(74) 代理人: 深圳市深佳知识产权代理事务所(普通合伙) (SHENPAT INTELLECTUAL PROPERTY AGENCY); 中国广东省深圳市罗湖区南湖街道春风路庐山大厦 B 座 18C2、18D、18E、18E2, Guangdong 518001 (CN)。

(81) 指定国(除另有指明, 要求每一种可提供的国家保护): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA,

(54) Title: DATA PROCESSING METHOD AND APPARATUS FOR CONSENSUS NETWORK, PROGRAM PRODUCT, DEVICE, AND MEDIUM

(54) 发明名称: 共识网络的数据处理方法、装置、程序产品、设备和介质

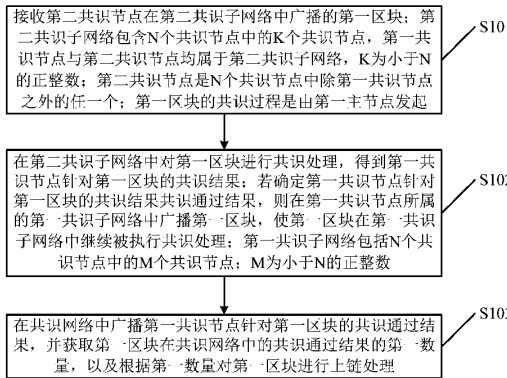


图 3

S101 Receive a first block broadcasted by a second consensus node in a second consensus sub-network, wherein the second consensus sub-network comprises K consensus nodes among N consensus nodes, a first consensus node and the second consensus node both belong to the second consensus sub-network, and K is a positive integer less than N; the second consensus node is any consensus node, other than the first consensus node, in the N consensus nodes; and a consensus process of the first block is initiated by a first master node

S102 Perform consensus processing on the first block in the second consensus sub-network to obtain a consensus result of the first consensus node for the first block; and if it is determined that the consensus result of the first consensus node for the first block is a successful consensus result, broadcast the first block in a first consensus sub-network to which the first consensus node belongs, so that the first block is continued being subjected to consensus processing in the first consensus sub-network, the first consensus sub-network comprising M consensus nodes among the N consensus nodes, and M being a positive integer less than N

S103 Broadcast, in a consensus network, the successful consensus result of the first consensus node for the first block, acquire a first number of successful consensus results of the first block in the consensus network, and perform on-chain processing on the first block according to the first number

(57) Abstract: The present application discloses a data processing method and apparatus for a consensus network, a program product, a device, and a medium. The method comprises: a first consensus node receiving a first block broadcasted by a second consensus node in a second consensus sub-network of a consensus network, so that the first block is subjected to consensus processing in the second consensus sub-network to obtain a consensus result of the first consensus node for the first block; if the consensus result of the first consensus node for the first block is a successful consensus result, broadcasting the first block in a first consensus sub-network of the

[见续页]

WO 2024/007689 A1

PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW。

(84) 指定国(除另有指明, 要求每一种可提供的地区保护): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST, SZ, TZ, UG, ZM, ZW), 欧亚 (AM, AZ, BY, KG, KZ, RU, TJ, TM), 欧洲 (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG)。

本国际公布:

— 包括国际检索报告(条约第21条(3))。

consensus network, so that the first block is subjected to consensus processing in the first consensus sub-network; and broadcasting, in the consensus network, the successful consensus result of the first consensus node for the first block, acquiring a first number of successful consensus results of the first block in the consensus network, and performing on-chain processing on the first block according to the first number. By using the present application, the traffic during consensus of the block can be reduced, and the block consensus efficiency and performance are improved.

(57) 摘要: 本申请公开了一种共识网络的数据处理方法、装置、程序产品、设备和介质, 第一共识节点接收第二共识节点在共识网络的第二共识子网络广播的第一区块, 从而在第二共识子网络中对第一区块进行共识处理, 得到第一共识节点针对第一区块的共识结果。若第一共识节点针对第一区块的共识结果为共识通过结果, 在共识网络的第一共识子网络中广播第一区块, 使第一区块在第一共识子网络中被执行共识处理。在共识网络中广播第一共识节点针对第一区块的共识通过结果, 获取第一区块在共识网络中共识通过结果的第一数量, 根据第一数量对第一区块进行上链处理。采用本申请, 可减少对区块进行共识时的通信量, 并提高对区块进行共识的效率及性能。